

INTERNATIONAL SEARCH REPORT

Inter. Classification No.
PCT/IB 01044

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C12N15/63 C07K14/47 A01K67/027 C07K16/18
G01N33/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K A01K G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EMBL, SEQUENCE SEARCH, EPO-Internal, WPI Data, PAJ, BIOSIS, MEDLINE, CHEM ABS Dat

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SOMMERS CONNIE L ET AL: "Knock-in mutation of the distal four tyrosines of linker for activation of T cells blocks murine T cell development." JOURNAL OF EXPERIMENTAL MEDICINE, vol. 194, no. 2, 16 July 2001 (2001-07-16), pages 135-142, XP002207177 ISSN: 0022-1007 cited in the application the whole document --- -/-	1,5-8, 11-13, 15,22

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

30 July 2003

Date of mailing of the international search report

13/08/2003

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Inte al Application No
PCT/IB /01044

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	<p>AGUADO ENRIQUE ET AL: "Induction of T helper type 2 immunity by a point mutation in the LAT adaptor." SCIENCE (WASHINGTON D C), vol. 296, no. 5575, 2002, pages 2036-2040, XP002207182 14 June, 2002 ISSN: 0036-8075 the whole document -& DATABASE EMBL 'Online! 2 May 2002 (2002-05-02) MALISSEN M: "Mus musculus LAT gene for linker protein, exons 1-12." Database accession no. AJ438435 XP002207184</p>	1-34
P,X	<p>SOMMERS CONNIE L ET AL: "A LAT mutation that inhibits T cell development yet induces lymphoproliferation." SCIENCE (WASHINGTON D C), vol. 296, no. 5575, 2002, pages 2040-2043, XP002249670 14 June, 2002 ISSN: 0036-8075 the whole document</p>	1-34
A	<p>SAMELSON L E ET AL: "STUDIES ON THE ADAPTER MOLECULE LAT" COLD SPRING HARBOR SYMPOSIA ON QUANTITATIVE BIOLOGY, BIOLOGICAL LABORATORY, COLD SPRING HARBOR, NY, US, no. 64, 1999, pages 259-263, XP001056468 ISSN: 0091-7451 cited in the application page 261</p>	1-34
A	<p>LIN JOSEPH ET AL: "Identification of the minimal tyrosine residues required for linker for activation of T cell function." JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 276, no. 31, 3 August 2001 (2001-08-03), pages 29588-29595, XP002207178 ISSN: 0021-9258 cited in the application the whole document</p>	1-34

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International Publication No.
 PCT/IB 03/01044

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ZHANG WEIGUO ET AL: "Association of Grb2, Gads, and phospholipase C-gamma1 with phosphorylated LAT tyrosine residues. Effect of LAT tyrosine mutations on T cell antigen receptor-mediated signaling." JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 275, no. 30, 28 July 2000 (2000-07-28), pages 23355-23361, XP002207179 ISSN: 0021-9258 cited in the application the whole document	1-34
A	WO 99 32627 A (SAMELSON LAWRENCE E ;US HEALTH (US); ZHANG WEIGUO (US)) 1 July 1999 (1999-07-01) * SEQ ID NO:3; SEQ ID NO:5 * claims 1-25	1-34
A	ZHANG WEIGUO ET AL: "Essential role of LAT in T cell development." IMMUNITY, vol. 10, no. 3, March 1999 (1999-03), pages 323-332, XP002207180 ISSN: 1074-7613	
A	SAITOH SHINICHIROH ET AL: "LAT is essential for FcepsilonRI-mediated mast cell activation." IMMUNITY, vol. 12, no. 5, May 2000 (2000-05), pages 525-535, XP002207181 ISSN: 1074-7613	